



Fig.24a

VH sequences

from combinatorial library:

	CDRI	CDR2	CDR3		(SEQ ID NO. 214)
A	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSEGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9 x4	(SEQ ID NO. 215)
B	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9 x3	(SEQ ID NO. 216)
C	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9 x3	(SEQ ID NO. 217)
D	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9 x3	(SEQ ID NO. 218)
E	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9 x3	(SEQ ID NO. 219)
F	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9 x3	(SEQ ID NO. 220)
G	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9 x3	(SEQ ID NO. 221)
H	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9 x3	(SEQ ID NO. 222)

from hierarchical library Vlt-rep x Ve-di:

	CDRI	CDR2	CDR3		(SEQ ID NO. 223)
I	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSEGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 224)
J	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9 x3	(SEQ ID NO. 225)
K	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9 x3	(SEQ ID NO. 226)
L	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 227)
M	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 228)
N	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 229)
O	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 230)
P	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 231)
Q	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 232)
R	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9 x3	(SEQ ID NO. 233)
S	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9 x6	(SEQ ID NO. 234)
T	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 235)
U	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 236)
V	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 237)
W	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 238)
X	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 239)
Y	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 240)
Z	QVQLQSGDGLAEPGASVVKHSCKASGTTTT	YINPSTGCTTHNQKFKD	KATLTADKSSSTA YHQLSSLTSEDSAVTYCAH	WCGTTTTVS9	(SEQ ID NO. 241)



Fig.24b

Vx sequences

from combinatorial library:

	CDRI	CDR2	CDR3		
a	DIELTQSPSSLSASLGERVSLTC	WLOQKPGDSIKRLIY	OVPAKPSGSRSGDYSYSLTISLSSEDFDAITYC	FGACTKLEIKRA X3	ox-JIke (SEQ ID NO. 236)
b	DIELTQSPAIHSAAPGCKVTHTC	WYQKSGASPKVMIIY	OVPAKPSGSGCTGYSLTISVVEAEDAATYYC	FGACTKLEIKRA X3	ox-JIke (SEQ ID NO. 237)
c	DIELTQSPPTTHAASPGCKITITC	WYQKPGFSPKLLIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA X3	ox-JIke (SEQ ID NO. 238)
d	DIELTQSPPTTHAASPGCKITITC	WYQKPGFSPKLLIS	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA X3	ox-JIke (SEQ ID NO. 239)
e	DIELTQSPAIHSAAPGCKVTHTC	WYQKPGFSPKLMIIY	OVPAKPSGSGCTGYSLTISRMEDAEDAATYYC	FGACTKLEIKRA X4	ox-JIke (SEQ ID NO. 240)
f	DIELTQSPAIHSAAPGCKVTHTC	WYQKPGFSPKLMIIY	OVPAKPSGSGCTGYSLTISRMEDAEDAATYYC	FGACTKLEIKRA	WoxI (SEQ ID NO. 241)
g	DIELTQSPAIHSAAPGCKVTHTC	WYQKPGASPKVMIIY	OVPAKPSGSGCTGYSLTISRMEDAEDAATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 242)

from hierarchical library VII-B x Vx:rep:

h	DIELTQSPAIHSAAPGCKVTHTC	WYQKSGTSPKRMIIY	OVPAKPSGSGCTGYSLTISRMEDAEDAATYYC	FGACTKLEIKRA X4	WoxI (SEQ ID NO. 243)
i	DIELTQSPAIHSAAPGCKVTHTC	WYQKPGTSPKLMIIY	OVPAKPSGSGCTGYSLTISRMEDAEDAATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 244)
j	DIELTQSPPTTHAASPGCKITITC	WYQKPGFSPKLLIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 245)
k	DIELTQSPPTTHAASPGCKITITC	WYQKPGFSPKLLIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 246)
l	DIELTQSPPTTHAASPGCKITITC	WYQKPGFSPKLLIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 247)
m	DIELTQSPPTTHAASPGCKITITC	WYQKPGFSPKLLIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 248)
n	DIELTQSPPTTHAASPGCKITITC	WYQKPGFSPKLLIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 249)
o	DIELTQSPAIHSAAPGCKITITC	WYQKPGTSPKRMIIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 250)
p	DIELTQSPAIHSAAPGCKVTHTC	WYQKPGTSPKRMIIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	WoxI (SEQ ID NO. 251)
q	DIELTQSPAIHSAAPGCKVTHTC	WYQKPGTSPKRMIIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	WoxI (SEQ ID NO. 252)
r	DIELTQSPAIHSAAPGCKVTHTC	WYQKPGTSPKRMIIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	WoxI (SEQ ID NO. 253)
s	DIELTQSPAIHSAAPGCKVTHTC	WYQKPGTSPKRMIIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 254)
t	DIELTQSPAIHSAAPGCKVTHTC	WYQKPGTSPKRMIIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 255)
u	DIELTQSPAIHSAAPGCKVTHTC	WYQKPGTSPKRMIIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 256)
v	DIELTQSPAIHSAAPGCKVTHTC	WYQKPGTSPKRMIIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 257)
w	DIELTQSPPTTHAASPGCKITITC	WYQKPGTSPKLMIIY	OVPAKPSGSGCTGYSLTIGTHEAEDVATYYC	FGACTKLEIKRA	ox-JIke (SEQ ID NO. 258)